

CHAPTER 1. INTRODUCTION

Rationale For Montana State Trails Plan

Montana's impressive system of trails is a destination for trail enthusiasts from throughout the country, but the network could be even better. Most of the trails are concentrated in western Montana and are managed by the U.S. Forest Service, with comparatively few opportunities in the eastern portion of the State.

The majority of the trails are in rural areas, away from Montana's principal urban centers. Logging and road building have resulted in a decrease in total trail miles since the 1940s. Rapid development in and around fast-growing urban areas is cutting off access to areas traditionally used for outdoor recreation. While many states have built impressive networks of railtrails, Montana has lagged behind, failing to capitalize on some spectacular opportunities for utilizing abandoned rail corridors as trails. At the same time, trail use is increasing significantly. Along with this, as in many other states, conflicts occur between trail users about what types of uses should be permitted in various areas.

This Plan is the first attempt to examine Montana's trail system from an inter-agency, statewide perspective. If there is a single, key reason for doing the Plan, it is to help squeeze the most value out of limited trail resources by avoiding duplication of effort, and establishing and focusing on high priority needs. The Plan will help provide direction to trail managers about where they should devote scarce resources to better serve trail users, by identifying who the users are, what they are doing, what they prefer, and where they are going.

An important goal of this Plan is to improve trail-related communication in Montana. Enhanced communication between trail managing agencies will help them meet public trail needs more

effectively. Improved communication between trail user groups will make them a more effective force in lobbying for an improved trail system. More contact between user groups and managing agencies will result in the latter receiving more and better information about trail conditions, needs, and conflicts, while users will learn more about the challenges facing trail managers.

The Montana State Trails Plan is not intended to usurp the management plans and planning processes used by the various federal, state, and local agencies which manage the state's trails. Rather, the Plan is meant to provide trail managers with information about the trail system and the people who use them, and to produce general, statewide recommendations on trail issues and needs. The primary focus of the Plan is on trails owned and managed by the federal, state, or local levels of government. Privately owned trails were included as part of the trails inventory and are part of this Plan, but they are a minor part of the overall state trails network.

The Montana Department of Fish, Wildlife and Parks (FWP) is the appropriate coordinating agency for public trails in Montana due to its unique position as the statewide outdoor recreation managing agency and as administering agency for a number of federal outdoor recreation and trails grants. FWP was given the authority by the Montana Legislature "to plan and develop outdoor recreational resources in the state," including the receiving and dispensing of funds for this purpose (Montana Codes Annotated [MCA] 1997, 23-2-101).

FWP's efforts to provide for and manage outdoor recreation must always be carefully balanced against its resource stewardship responsibilities, as laid out in Goal C of the agency's *Vision for the Future* statement: FWP will "maintain and enhance the health of Montana's natural environment and the vitality of our fish, wildlife, cultural, and historic resources through the 21st century" (FWP 1998d).

In order to comply with funding requirements of the federal Land and Water Conservation Fund Act (LWCF) of 1965, the FWP is required to periodically prepare a “comprehensive outdoor recreational plan” (SCORP), which evaluates the demand and supply of outdoor recreation resources and facilities (23-2-103, FWP 1993). The SCORP must include: A) an evaluation of the demand for and supply of outdoor recreation resources and facilities in the State; and B) a program for implementation of the plan (FWP 1993). The FWP is required to coordinate with, and represent the interests of, all agencies responsible for outdoor recreation, in order to implement the resulting SCORP recommendation

The 1993 Montana SCORP identifies a statewide trails plan as perhaps the most significant of the three key components of the next SCORP. This Plan is intended, at least in part, to fulfill SCORP requirements. The National Park Service, in a 1991 report, also strongly encouraged the development of a comprehensive state trails plan as integral to the future National Trails System Plan. A state trails plan is also required in order for a state to qualify for funding by the National Recreation Trails Fund Act.

Under the Montana Environmental Policy Act (MEPA), FWP is required to prepare a detailed statement on environmental impacts of programs significantly affecting the environment (Administrative Rules of Montana [ARM] 1997). According to FWP rules, an “action” includes a program directly undertaken by an agency, and project or activities supported through a grant. The Department must conduct a “programmatic review” to analyze the impacts of a series of actions, programs, or policies. In order to comply, FWP is developing a programmatic environmental impact statement (PEIS) that addresses social, economic, and environmental impacts of the trails grant program; the document is not intended to be an all-purpose environmental analysis for individual trail projects. The managers of individual trail projects would still be responsible for complying with both MEPA and the federal National Environmental Policy Act (NEPA) for specific projects.

Overview of Planning Process

Traditionally, trails planning in Montana is undertaken by the agency managing the trail, in cooperation with trail users and the organizations they belong to. Until now, there has never been a comprehensive effort to examine how the trails managed by each agency fit together. The planning process for the Trails Plan/PEIS began in 1994 with the establishment of a Trails Plan Advisory Committee (TPAC).

The TPAC was intended to be a technical group composed mainly of agency representatives, with the mission of assisting FWP with the planning initiative. Representatives from the following groups and perspectives were invited to participate:

- U.S. Bureau of Land Management (BLM)
- U.S. Forest Service (USFS)
- National Park Service (NPS)
- Montana Recreation and Parks Association (MRPA)
- Montana Department of Transportation (MDOT)
- Montana State Trails Advisory Committee (Non-motorized representative)
- Montana State Trails Advisory Committee (Motorized representative)
- Montana League of Cities and Towns
- Montana Association of Counties
- Montana Institute for Tourism and Recreation, University of Montana
- Montana Department of Fish, Wildlife and Parks (FWP)
- Travel Montana, Montana Department of Commerce
- Disabled Access Issues
- Montana Office of Indian Affairs
- Montana Historical Society (MHS)

The majority of the groups listed above were active participants through the initial stages of the planning process. Two members of the Plan Committee listed above were appointed by the existing State Trails Advisory Committee

(STAC), one each to represent motorized and non-motorized users.

The STAC is a statewide committee composed of representatives from various trail user groups which makes recommendations on trails funding and other trails related issues (see Appendix A for list of members). In addition to having representation on the Plan Committee, the STAC members were periodically updated on progress, and played a significant role in developing and reviewing the Plan. Trail uses represented on the STAC include the following:

- Hiking
- Horseback Riding
- Off-highway Motorcycling
- ATV
- Cross-country Skiing
- Snowmobiling (not covered in this Plan)
- Bicycling
- Off-highway 4x4 driving

A number of sources were utilized to complete this plan. The Institute for Tourism and Recreation Research at the University of Montana in Missoula was contracted to undertake two major research projects. Beginning during the fall of 1993, the Institute surveyed trail users about their trail use during the previous six months (capturing summer use). The second phase of the survey was initiated during April, 1994, and was designed to capture data on winter trail use. More details about the trail user survey are discussed later in the Plan.

The Institute also completed an inventory of designated trails in Montana. Trail managing entities were contacted to supply trail data including location, length, elevation range, prohibited uses, and other information. Key themes that emerged from the inventory are discussed later in the Plan.

A considerable amount of information in the Plan was derived from the public involvement phase of the planning process. Early in the plan development process, a series of eighteen public scoping meetings were held around the state to gather information on what trail-related issues

were most significant. In total, more than 400 people attended the meetings. In addition to information gathered at the meetings, more than 315 written comments were received during the scoping period. Two reports containing prioritized lists of issues were compiled from both the meetings and written comments, and were made available to both advisory committee members and the public (FWP 1995a, 1995b).

Following the scoping period, a consultant was hired to assist with research for the Plan and PEIS, and assemble a draft version of the PEIS. While the research formed the core of the PEIS, much of it was also useful in putting together the Plan. Both the Plan and PEIS relied on the same public involvement process.

The information from the scoping period was consolidated into an interactive plan “workbook” containing draft issues, goals, and strategies for people to review and comment on. The workbook was intended to be an intermediate phase of public involvement, in between the public scoping period and the draft Plan/PEIS review period. An initial draft of the workbook was circulated among both technical and user group advisory committee members for review, and then revised and made available to the public and large numbers of staff in the managing agencies.

Finally, the information which came out of the Plan/PEIS research, scoping phase, and workbook was consolidated into a draft plan. As with the workbook, the draft Plan was first reviewed by advisory committee members and agency staff, before being made available for public review.

Key dates and process steps in the Trails Plan/PEIS development process are as follows:

- * **October, 1993:** Summer use trail attitude survey mailed to random sample of Montanans.
- * **April, 1994:** Winter use trail user survey mailed to random sample of Montanans. Trails Plan proposal presented at Montana State Trails Conference.

- * **June, 1994:** Initial meeting of Montana State Trails Plan Advisory Committee; additional members added for second meeting. The STAC Committee also was periodically appraised of Plan/PEIS progress.
- * **September, 1994:** University of Montana completes final reports on state trail inventory and trail user surveys.
- * **October, 1994:** Draft scoping document completed.
- * **November, 1994:** January, 1995: Eighteen public scoping meetings held around the state, in nine locations.
- * **February, 1995:** Report summarizing results from scoping meetings completed.
- * **July, 1995:** Report summarizing written public scoping comments completed.
- * **September, 1995:** Consultants hired to assist with Plan/PEIS research.
- * **November, 1995—January, 1996:** Interactive “workbook” completed for advisory committee review. Workbook contains draft issues, goals, and strategies, with space for writing in changes or comments.
- * **January, 1996—May, 1998 (general):** Work proceeds on Plan/EIS research, writing, and mapping. Advisory Committees continue to meet to discuss Plan/EIS development.
- * **February, 1996:** Second draft of workbook made available for public and additional agency review. Public workbook is designed to be an intermediate public involvement step, in between the scoping meetings and draft Plan/PEIS public review.
- * **1997-1998:** Interns and staff work on plan, as time allows.
- * **January 1999:** New consultant hired to help complete Draft Trails Plan and Programmatic EIS.

- * **May 1999:** First internal review Draft Trails Plan/PEIS completed.
- * **August-October, 2000:** Public review of draft Plan/PEIS. Open houses held in Kalispell, Missoula, Great Falls, Helena, Bozeman, Billings, and Miles City. Approximately 325 comments were received on the drafts from the public, organizations, and agencies. (An overview of the public comment period is included in Appendix C of the Plan, with a more complete description of substantive comments and FWP responses in the PEIS Appendix.)
- * **November, 2000:** FWP Trails Advisory Committee meets to review public comments and suggest agency response to substantive issues.
- * **April, 2001:** Trails Plan/PEIS released, after being revised based on public and agency comment.

Definition of “Trail”

For the purposes of this Plan, “trail” will be defined very generally as a path, right-of-way, or other linear corridor used by the public for outdoor recreation (including both motorized and non-motorized modes), or alternative (non-motorized) transportation. The broad definition of trail used in this Plan is designed to ensure that the research in the document is comprehensive and—to the greatest extent possible—accurately reflects (but not necessarily endorses) what’s occurring on the ground.

In addition to what is stated above, the definition used in the federal program guidelines for the Recreational Trail Program (RTP) is also applicable to the main scope of discussion in the Plan and PEIS. In the guidelines, recreational trail is defined as follows:

A thoroughfare or track across land or snow, used for recreational purposes including but not limited to, such uses as bicycling, Nordic (cross-country) skiing, day hiking, equestrian activities, jogging or similar fitness activities,

trail biking, overnight and long-distance backpacking, roller skating, in-line skating, dog-sledding, running, snowmobiling, aquatic or water activity, and vehicular travel by motorcycle, four-wheel drive, or all-terrain off-road vehicles. The term "thoroughfare or track" excludes roads generally accessible by low-clearance passenger vehicles (unless those roads are specifically designated for trail use by the managing agencies), but includes high-clearance primitive roads.

A point worth stressing is that the definition used in this Plan is descriptive, rather than legally prescriptive. Managing agencies use a variety of ways for defining and/or describing what a trail is, and the definition used here must be broad enough to encompass all of them.

Primitive roads such as those managed by the Forest Service and BLM are included because the federal guidelines for the RTP Program allow the use of grant money for these types of routes. Also, these roads often function as access routes to trails. According to Forest Service classifications, a road is a route that is more than 50 inches wide. However, other managing agencies maintain routes they call trails that are wider than 50 inches, so a specific width as part of any trail definition won't work for the purposes of this Plan.

One major type of trail use not covered in the Plan is snowmobiling, as that was covered in an earlier document (i.e., Snowmobile PEIS, 1993). Water-based trails are another type of use not addressed in this Plan. Because of the growing interest in and use of Montana's waterways, there is a need for more water recreation planning, but it is beyond the scope of this Plan.

A more specific definition of trail was used to compile the *Montana State Trails Inventory*, completed as part of the planning process. In part, the greater specificity was required because in order to count trails, the managing agencies had to know they existed, their length, and where they were located, information that is not available for informal trails, for example. The criteria

used to define trails in the inventory was as follows (ITRR 1994a):

- * Limited to vehicles less than 50 inches wide (i.e., this would exclude four-wheel drive vehicles such as SUVs and trucks, but not ATVs and off-road motorcycles).
- * Must be officially classified as a trail by the agencies which manage it (i.e., informal trails or game paths were not included).
- * Trail must be periodically maintained.

Because of the complexity of trail issues in the state, the discussion in the Plan will not be strictly limited by the criteria used in the inventory. A number of important trail issues identified during the public scoping meetings fall outside the boundaries of the trails inventory, including the following:

- * Primitive roads and undesignated routes are heavily used for a number of trail related recreation activities, especially motorized uses. At the same time, such roads are potential sources of trails, and are discussed to varying degrees in the Plan and PEIS.
- * Some undesignated and/or unmaintained routes on public land may be heavily used by trail users. In some cases, new trails are being illegally constructed on public land, while others are created through use over time.
- * Some corridors which are not currently under public ownership may have the long-term potential to eventually become designated trails.
- * Some roads which are closed to vehicular use in winter are used for snowmobilers, cross-country skiers, and other users.
- * Bike lanes and wide shoulders are often used as trails, but were not classified as such in the inventory. While these types of facilities are not the main focus of the Trails Plan, they will be discussed. The Montana Department of Transportation is undertaking a bicycle/

pedestrian plan in the next few years which will address these facilities in more detail.

- * Paved bike trails can easily be wider than the 50 inch limit used in the inventory.

Overview of Trail Managing Agencies

Montana contains over 14,600 miles of trails, managed by a number of federal, state, and local agencies. Although federal agencies, especially the Forest Service, manage by far the majority of trails and trail miles, other agencies play a key role in providing trail opportunities not served by the big players, such as trails near urban areas. More details on agency policy, management and planning—as well as specific contacts—is found in the Appendix.

Federal

The U.S. Forest Service

Montana's national forests, containing approximately 16.8 million acres of land and 92 percent of the state's trail miles, fall under the jurisdiction of the Northern Region (or Region One) of the Forest Service, based in Missoula, Montana (ITRR 1994a). This land is divided into ten National Forests, including the Beaverhead, the Bitterroot, the Custer, the Deerlodge, the Flathead, the Gallatin, the Helena, the Kootenai, the Lewis and Clark, and the Lolo, which are further broken down into 43 ranger districts. The Beaverhead and Deerlodge National Forests have combined management.

The National Trails System Act established a National Trail System consisting of trails of national significance, including those designated for recreation, scenic, and historic reasons. Presently, three national trails occur in Montana: the Continental Divide Scenic Trail, the Lewis and Clark Historic Trail and the Nez Perce (Nee-Me-Poo) Historic Trail. Although a large portion

of the trail miles that occur in Montana are on Forest Service (as well as private) land, the National Park Service administers the trails.

Additionally, the Forest Service is currently undertaking a feasibility study for the Great Western Trail, a candidate for National Trail System status running from Canada to Mexico through the Intermountain West. In Montana, three potential corridors running from Glacier National Park to Yellowstone National Park have been identified.

The National Park Service

The National Park Service (NPS) administers six sites in Montana, including Glacier National Park, a portion of Yellowstone National Park, Bear Paw National Battlefield, Big Hole National Battlefield, Bighorn Canyon National Recreation Area, and the Grant-Kohrs Ranch National Historic Site. Collectively, these sites include six percent of Montana's trail miles (ITRR). Most NPS trails in Montana are in Glacier and—to a lesser extent—Yellowstone National Parks. A number of the trails in Glacier and Yellowstone connect with adjacent Forest Service trails, and some Glacier trails link with those in Waterton Lakes National Park in Canada.

The Bureau of Land Management

There are seven Bureau of Land Management (BLM) field offices in Montana: Billings, Butte, Dillon, Lewistown (with field stations in Great Falls and Havre), Malta (with a Field Station in Glasgow), Miles City, and Missoula, manage over eight million acres of land. BLM lands are concentrated in eastern and southwestern Montana. Most BLM trails in Montana tend to be informal; the agency lacks the vast system of designated trails found on Forest Service and National Park Service Lands. At the time of the trail inventory, the BLM managed one percent of Montana's trail miles (ITRR).

The U.S. Fish and Wildlife Service

Montana has ten U.S. Fish and Wildlife Service (FWS) National Wildlife Refuges (NWR) in Montana that offer opportunities for outdoor recreation, including Benton Lake, Blackfoot Coulee, Bowdoin, Charles M. Russell, Hailstone, Halfbreed, Lee Metcalf, Medicine Lake, Ninepipe, Red Rock Lakes, as well as the National Bison Range. These units total over 1,333,400 acres of land, including three Wilderness Areas totaling over 64,000 acres. Most trail opportunities on FWS land are informal; the agency manages less than one percent of the state's designated trail miles (ITRR).

State

FWP

The Montana Department of Fish, Wildlife, and Parks (FWP) manages State Parks, Fishing Access Sites (FASs), and Wildlife Management Areas (WMAs) around the state. Many state parks have (generally short) designated trails within their boundaries, while FASs and WMAs provide opportunities for informal trail-related activities. FWP manages less than one percent of the designated trail miles in the state, although some of these are very heavily used due to their proximity to major urban areas (ITRR).

The Parks Division has administrative responsibility for the Division's recreation programs, including three trail grant programs, as follows: (1) the Montana Snowmobile Grant Program; (2) the Off-Highway Vehicle (OHV) Program; and (3) the Recreational Trails Program. More information on the FWP grant programs is provided later in the Plan, as well as in the Trails Program PEIS.

State School Trust Lands

State School Trust Lands are managed by the Trust Land Management Division, in the Department of Natural Resources and Conservation

(DNRC). The primary purpose of School Trust Land is to generate revenue for Montana public education, although conditional recreation is allowed. A recreational use permit must be purchased to recreate on School Trust Lands. Trail use on School Trust Lands is informal, with no formally designated system of trails.

University of Montana/Lubrecht Experimental Forest

The Lubrecht Experimental Forest was created in 1937 by a gift of land from the Anaconda Copper Mining Company to the Montana Forest and Conservation Experiment Station (MFCES), part of the University of Montana, Missoula. The property contained a primitive road network, narrow gauge railroad grades, and old wagon and horseback trails, some dating back to early settlement of the surrounding valleys in the late 1800s. The MFCES began its formal trail program in the early 1970s with a series of cross-country ski trails. Overall, the University manages less than one percent of the state's trail miles (ITRR).

The Director of Field Stations for the MFCES oversees and guides trail management. Goals include providing public recreation and education. The forest plans to expand its system of cross-country ski trails, as well as allowing other non-motorized uses in the future. The forest will be developing these trails in conjunction with local educators, and other state and federal agencies.

Local Governments

Urban trail systems are typically managed by city and county governments. Although comprising less than one percent of the total number of trail miles in the state, these routes are disproportionately significant because of their location in and around population centers, and their subsequent high amount of use. Altogether, nine cities and one county reported managing trails in the 1994 Montana Statewide Trail Inventory (ITRR),

although this number has likely expanded since then. These and other urban areas also have parks and open space utilized for informal trails.

Preserving open space has become a big issue in many cities and towns. For example, Helena and Missoula have passed open space initiatives, which fund the acquisition of land to preserve open space. A number of city/county agencies and local citizen groups have developed strategies that consider and encourage greenway preservation in new developments. Access to existing public lands has also become an issue in some areas, with local governments and citizen groups utilizing a number of strategies to maintain and create public access. For example, a number of Forest Service trail heads have been created by local planning agencies from the dedication of parkland required of new subdivisions by the Montana Subdivision and Platting Act (MCA 1997).

An overview of Missoula's trail system—which serves as an excellent case study for urban trails in Montana, is included in the Appendix—while later sections of the Plan contain more detailed information on Montana's urban trail systems.

Benefits of Trails

Trails produce multiple benefits and significantly improve a community's quality of life by providing opportunities for outdoor recreation, protecting natural and cultural resources, and creating economic opportunities. Trails provide alternative transportation routes that reduce pollution as well as encourage participation in outdoor social, fitness, and educational activities. The benefits accrued by a strong trail system are consistent with FWP's mandate to manage outdoor recreation, and the Montana State Park System's mission of

conserving the scenic, historic, archaeological, scientific, and recreational resources of the state and providing for their use and enjoyment, thereby contributing to the cultural, recreational, and

economic life of the people and their health (Montana Codes Annotated 1997, 23-1-101).

Montanans and visitors alike highly value outdoor recreation, open space, and natural areas; trails are an increasingly important component in the public enjoying these resources and activities.

Outdoor Recreation

Trail-related activities are among the most popular and fastest growing outdoor recreational activities in the Nation. Trails are also an important component of outdoor recreation in Montana and are used by over 55 percent of all Montanans (FWP 1998). Trails are often utilized for other very popular outdoor activities, including picnicking, sightseeing, wildlife and nature viewing, photography, fishing, and hunting. Enjoying nature, physical fitness, stress release, adventure, and affiliating with others interested in the same activity are all important motivations to resident trail users (ITRR 1994b). In general, "trails provide all the myriad personal and social benefits generated by participation in outdoor recreation, such as improved health and fitness, relaxation, challenge and adventure, family togetherness, and an increased awareness of nature (Moore and Ross 1998)." Montanans agree that more trails are needed, especially near their communities.

Trails can provide safe and enjoyable transportation links between parks and recreation areas, as well as schools and other public facilities that encourage participation in outdoor recreation and education.

Social/Community Benefits

Trails provide low-cost recreational and leisure opportunities for a wide spectrum of the population. In urban areas, in particular, trails have become a kind of modern common space, one of the few places where people from all ethnic backgrounds and socio-economic classes can mingle together in a pleasant, non-threatening

atmosphere (Macdonald 1998, Moore and Ross 1998). In rural areas trails are the common ground for many types of recreation and groups of people, contributing to a community's cohesiveness. Trails can foster a community's sense of place and continuity with history by preserving important landscape features. Trails can foster community pride, which is especially important in rapidly changing urban and suburban areas; trails often become a rallying point for civic minded individuals and organizations providing community space for a variety of activities and organizations.

Perhaps the most important role trails can play in society is strengthening the family. Family bonds are strengthened by sharing of leisure time: "Leisure is the single most important force developing cohesive, healthy relationships between husbands and wives and between parents and their children" (Canadian Parks/ Recreation Association 1997). Children develop discipline, cooperative behavior, and an understanding of group dynamics by participating in outdoor activities, while participation in such activities with family members helps develop a strong and stable family bond, which in turn benefits the larger community.

Organized recreational and conservation activities in general also contribute many social benefits to the community, including reducing crime and anti-social behavior by providing alternatives, reducing alienation and loneliness, increasing understanding between cultures and groups, and providing a purpose in life: "Recreation is preventative medicine for social ills caused by youth and young adults having nothing to do" (National Association of State Park Directors 1997). Organized outdoor recreation opportunities for youth helps relieve boredom, curb social problems, develop career and leadership skills, and encourages healthy living (Canadian Parks/Recreation Association 1997). A strong trail system, especially in urban areas, is an integral component for providing these opportunities

In rapidly growing urban areas, public trails can preserve traditional recreation areas as they are

threatened by development, abandonment, and closure, which helps mediate the affects of urban sprawl on the quality of life. The creation of trails in formerly abandoned areas can reduce existing public nuisances and hazards, and discourage garbage dumping. For example, urban trail systems in Helena, Butte, and Great Falls are important components of urban revitalization efforts.

Alternative Transportation

Non-motorized trails offer safer and more enjoyable alternatives to motorized transportation. Public trails, especially in urban areas, promote a number of public benefits by offering alternatives to motorized transportation that reduce overall pollution, energy consumption, and traffic congestion, which in turn saves society money and improves the overall quality of life.

Nationally, annual costs of traffic congestion have been estimated at \$100 billion. A Minnesota study estimated that between five and 22 cents would be saved by the public for every automobile mile replaced by walking or biking, just in reduced pollution and traffic congestion (The National Bicycling and Walking Study [NBAWS] 1994). Although Montana generally has low levels of congestion, a growing population, and expanding residential areas are contributing to increased traffic and pollution in the larger urban areas.

Alternative transportation routes encourage non-motorized transportation, which in turn helps alleviate traffic congestion and pollution. Lack of safe routes is a significant deterrent to many who would walk or bike instead of drive, with a 1991 Harris Poll showing that of the 46 percent of adult Americans who had ridden a bicycle in the previous year, 53 percent would sometimes ride to work if they had safe, separate paths to ride on, and 20 percent of Americans in general would commute by bicycle if there were enough bike trails and safe lanes on roadways (NBAWS 1994, Macdonald 1998).

Billings and Missoula, with the worst air quality in the state, foresee existing and proposed foot and bike routes improving air quality, which in turn will help these community's meet air quality standards (Yellowstone County 1994, City of Missoula 1994).

Just under eight percent of Montanans walked to work everyday in 1990, almost twice the national average, with walking a traditional form of transportation in small towns across the state and in the older large urban areas (Montana Department of Transportation 1994). Presently, just under one percent of all journeys to work use bicycles, which is also almost twice the national average.

Many of Montana's bigger cities were built as pedestrian cities with greater densities of people than seen currently, keeping distances from home to work within walking or bicycling distance. However, as urban sprawl and development increase commuting distances and traffic, alternative transportation becomes more problematic. Trails that preserved or replaced these traditional pedestrian and bicycle routes would encourage non-motorized commuting.

Conservation and Resource Protection

Linear corridors of land for trails and greenways (linear shaped nature parks) can play an important role in conserving and providing access to natural resources. Urban trails which preserve greenways help control pollution. Through the process of oxygenation and the removal of carbon dioxide, for example, plants in these corridors help increase air quality. Plants also reduce particulate matter in the air, including sulfur dioxide and heavy metals, as well as provide temperature moderation by the evapotranspiration of groundwater and providing shade. Greenways reduce air, noise, and heat pollution, and provide a healthier environment than roads. By preserving land, trail corridors help provide areas for groundwater infiltration, which cleans water and controls flooding. Riparian areas, floodplains, and buffers along

streams that are protected from development are ideal for urban trails. Greenways in riparian areas provide flood control and filter pollutants from surface water and help replenish groundwater supplies.

Vegetation along trail corridors can provide important wildlife habitat and corridors for wildlife movement. In developed or agricultural areas, trail corridors offer a conduit for populations of plants and animals to mix, increasing genetic variability. It is worth noting that it is the habitat in the trail corridor—rather than the actual trail—that produces many of these environmental benefits. In some cases, the trail is one of the major justifications for acquiring the corridor and keeping it in a natural state. Environmental benefits produced by the physical trail are related to its capacity for providing alternative transportation options (e.g., people may be biking or walking to work, rather than driving).

Trails and trail corridors can also preserve remnants of the past that remain integral to a sense of community and place. Remnant landscapes and landscape features in Montana are mainly agricultural, although in some cases (e.g., Butte, Helena) trails can preserve mining landscape features or industrial and transportation areas. Access to natural areas and recreational opportunities tend to decrease as land traditionally used by the public is developed, especially in faster growing urban areas. These historical trail systems are important recreation and alternative transportation routes for communities and should be protected.

Finally, trails can also play an important role in resource protection in that they help manage where recreational activity occurs. Properly designed and located trails can keep people (and their pets) away from sensitive cultural and natural resources. A trail that winds through important cultural resources, for example, may allow people to view and experience features that are less vulnerable to human presence (or vandalism), while steering users away from highly critical resources which could be threatened by too many people. Directing human activity to

well-located trails can also help reduce disturbances to wildlife because human encounters become much more predictable—they are largely confined to routes where animals expect them to occur. Concentrating people along corridors—as opposed to recreation which occurs all over the landscape—can also help reduce the spread of noxious weeds. Of course, there are some areas which are so sensitive that *no* recreational activity should occur, on trails or otherwise.

Health Benefits

Trails encourage and provide opportunities for fitness activities, helping reduce health costs. Increased fitness lowers mental and physical health care costs, and improves work performance (Canadian Parks/Recreation Association 1997; National Association of State Park Directors 1997). The most successful exercises are moderate intensity activities that can be easily incorporated into daily activities, including walking, biking, or roller blading (NBAWS). Bicycling or walking for transportation is a more sustainable, time-efficient, and inexpensive means of maintaining a healthy level of fitness than other more organized fitness activities. However, one of the most frequently cited reasons for not biking is concern over safety and traffic. Trails provide a safer and more appealing alternative than roads, therefore encouraging participation.

Although the health benefits of regular physical activity are widely known, most Americans get too little exercise, with forty percent of adults considered sedentary (The National Bicycling and Walking Study 1994). A number of studies have concluded that moderate exercise will extend the average life span of adults by over two years. Physical recreation is also the most influential factor in reduced mortality rates among Americans, and has an inverse affect on coronary heart disease, hypertension, and diabetes.

Cardiovascular diseases affects approximately six million Americans, causes 500,000 deaths a year, and costs upwards of \$135 billion annually

(Canadian Parks/Recreation Association 1997). The leading cause of heart disease is lack of physical exercise, with over 20 percent of deaths from heart disease caused by lack of exercise. Physical activity also benefits older people's long-term health, resulting in increased mobility, reduced mortality, and an overall increase in the quality of life.

Physical activity also benefits mental health by reducing levels of depression, stress, and anxiety, while increasing self-esteem, emotional stability, and self-control. Natural areas and trails not only encourage participation in outdoor activities, they provide psychological benefits to individuals as well, including exposure to beauty, solitude, and new experiences, thereby providing relaxation and stress reduction. Especially in urban settings, trails help provide a refuge and escape from the human environment and daily routines.

Environmental, Historical and Cultural Education

Trails provide significant opportunities for environmental, historical, and cultural education. Trail systems offer inexpensive and interesting hands-on educational experiences, which in turn elicit a greater appreciation of neighbors and community, local and statewide history, and natural resources and the environment. By preserving cultural, historical, and natural areas, trails present the opportunity for interpretive education in unique outdoor settings, which in turn can foster interest in further learning.

Educational outdoor recreation activities, including visiting historic sites and utilizing interpretive trails, are increasingly popular among visitors and residents alike. When vacationers were asked why they visited Montana in the summer of 1996, thirteen percent said viewing historic sites, eleven percent said Montana history, and eleven percent said Native American history (ITRR 1997). When they were asked what their primary reason for visiting the state was, six percent said Montana history. Education and interpretation, including interpretive trails, are integral to the mission of the Parks Division.



Interpretive trails also play an important role in the educational programs offered by the National Park Service, Forest Service, and the BLM, as well as local trail managing agencies.

Economic

Numerous studies using various economic measures conclude that public trails benefit local economies in a number of ways (Moore and Barthlow 1998, New Hampshire Office of State Planning 1997 et al.). Outdoor recreation, and trails in particular, are significant economic generators that attract businesses, draw tourism, create jobs, and increase property values. A strong trail system both helps preserve these natural amenities and provides greater opportunities for enjoying them. Public trails generate money that is circulated through the community, increasing property values and raising tax revenues.

Statewide, trail related activities contribute significantly to the economy. Design and construction of trails creates jobs, while trail users contribute to the economy significantly. According to *The Montana Trail User Study* (1994b), the average spring or summer trail trip in Montana involves \$42 worth of expenditures, with grocery and restaurant expenses accounting for nearly half the total, and fuel being about a third (see Figure I-1). Winter trips generate more economic activity, the typical excursion generating \$50 in expenditures, with nearly one-third spent on retail purchases. Retail was nearly three times as important in the winter, representing nearly a third of the total winter expenditures (see Figure I-2). In some Montana locations (e.g., West Yellowstone and Cooke City) winter trail use represents a substantial amount of the local economy.

A 1990 study by the University of South Dakota found that a rail-trail from Edgemont to Deadwood in the Black Hill of South Dakota generated direct expenditures of \$650,000 annually, while a 1989 study by the University of Wisconsin estimated that a 32-mile rail-trail linking two small communities in central Wisconsin added

over \$1.25 million to the local economy annually (Nebraska Department of Economic Development 1994).

Trails attract visitors and help rural communities diversify their economic base by increasing recreation opportunities that draw tourists (Rivers and Trails Conservation Assistance 1990). Trails are sustainable development in that they help preserve scenery, the most important reason given by tourists for visiting Montana. Scenic beauty and open space, with opportunities for outdoor recreation, are among the most popular reason given for choosing Montana as a home.

By improving the overall quality of life and providing outdoor recreation opportunities, trails are an important pull factor for businesses (Moore and Ross 1998). Quality of life for employees is a primary factor in determining location, especially for high-tech businesses not tied to customer location, and outdoor recreational opportunities, including parks and trails, are considered a prime component.

Trails also raise the value of adjacent property (Moore and Barthlow 1998). In Boulder Colorado, property values declined between \$4 and \$10 dollars for each foot of distance from a green way, while the aggregate property value of one neighborhood was increased \$5.4 million by a green way (Hanson and Lemanski 1998). In Montana, the Bozeman area Gallagator trail has also increased the value of adjacent property and homes, and is used as a positive selling point by local real estate agents (Gallatin Valley Land Trust 1992). A survey of adjacent homeowners revealed a number of associated benefits, including an overall increase in the quality of life.

Trails also have an indirect but significant impact on the economy by promoting physical activities. Increased participation in physical activity raises labor productivity, and reduces medical costs (Canadian Parks and Recreation Association 1997). Physical activity is also linked to reduced absenteeism, improved moral, and greater job satisfaction.

Figure I-1. Average Expenditures of Spring-Summer Trail Trip

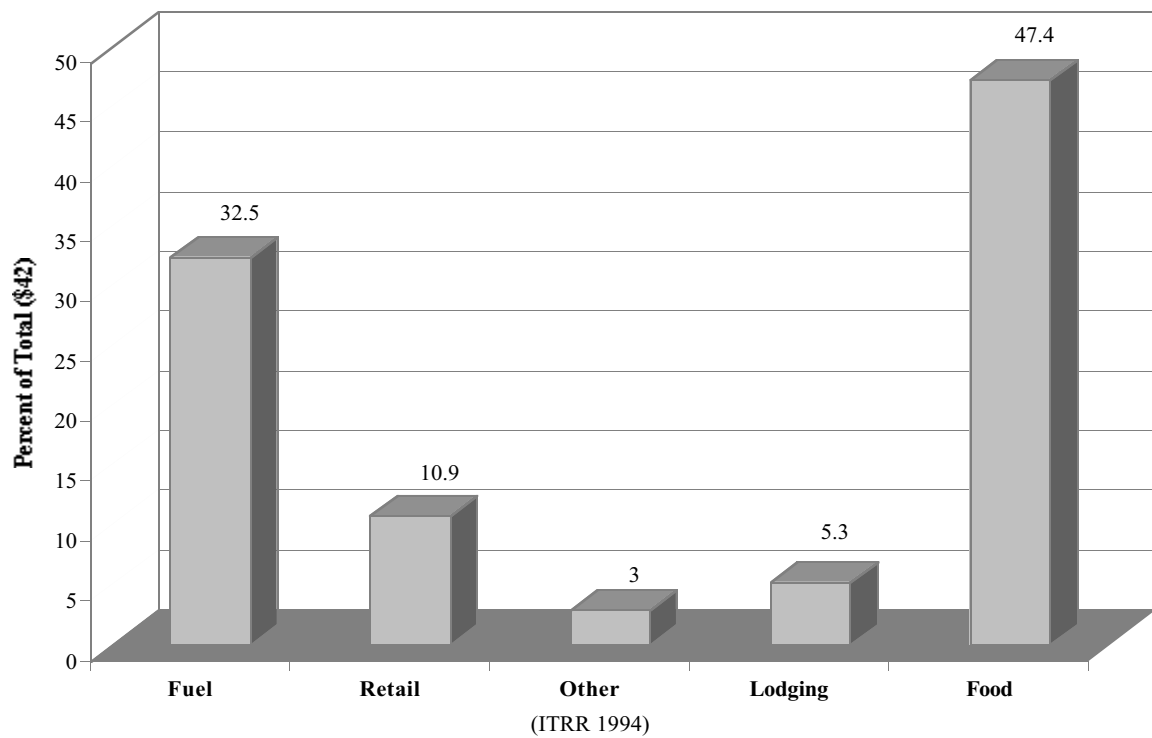
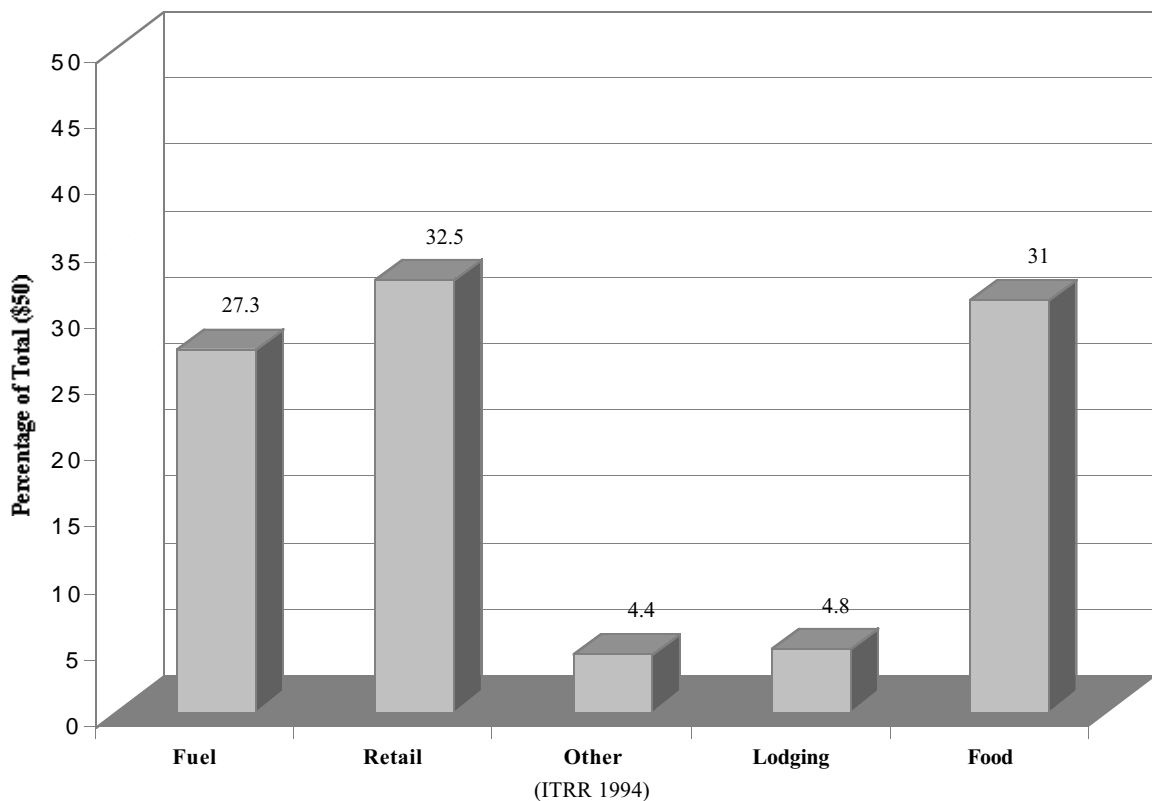


Figure I-2. Average Expenditures of Fall-Winter Trail Trip



Preserving land for trails and green ways also creates less ongoing public expenses than other types of development, especially in areas with added public costs to development, such as flood-prone areas, steep and unstable slopes, and environmentally important or sensitive areas.

Negative Impacts

It would be erroneous to imply that trails are inherently and necessarily beneficial, or that the supply of trails in Montana should expand indefinitely. There are limits to how many trails Montana's wild country can support and still sustain critical resources. Potential negative impacts of trails are discussed in the *Trails PEIS*, but it is worth briefly noting here some of the negative impacts that can result from trails.

Poorly located and/or designed trails, in particular, can contribute to soil erosion, sedimentation of watersheds, loss of vegetation, and wildlife impacts. Like roads, trails can provide an impervious surface, and hasten runoff into surrounding water bodies. Additionally, trails can be important conduits for the spread of noxious weeds. All of these adverse environmental impacts can lead to economic costs incurred by managing agencies, adjacent private landowners, and ultimately the public.

In addition, there are trail management issues that can lead to adverse social impacts. Trails with high levels of conflict between users can create tension and anger between user groups, leading to polarization. Conflicts have become especially acute in some parts of Montana during hunting season, where there are disagreements about what role ATVs and other motorized vehicles should play in the hunt. Social conflicts can result in economic impacts, as some types of users can be displaced from favorite locales by other users.

Trail Plan Components

A number of the most important thematic elements addressed in the Montana State Trails Plan are as follows:

- * **MONTANA TRAIL SYSTEM:** Chapter II discusses the existing trail system, including the number of trails, what agency manages them, their geographic distribution, their attributes, and what uses are permitted on them.
- * **MONTANA TRAIL USER ATTITUDES/DEMAND/TRENDS:** Chapter III discusses trail use and user attitudes, as well as national and statewide trends affecting the use of Montana's trails. A series of surveys were utilized to determine trail preferences, use patterns, user conflicts, and other trail use and user attitude data.
- * **TRAIL ACCESS AND LINEAR CORRIDOR ALTERNATIVES:** Chapter IV discusses access issues, and identifies land use and land ownership patterns with potential for new trails and linkages, including abandoned rail grades, utility rights-of-ways, and other linear corridors.
- * **FUNDING OF TRAILS:** Chapter V summarizes funding sources for trails and trail-related projects, as well as potential future sources of funding, and public attitudes towards funding.
- * **KEY ISSUES AFFECTING MONTANA TRAILS AND TRAIL USERS:** Chapter VI identifies the most important issues affecting Montana's trails and the people who use them, as ascertained from public input and research. This story also identifies goals, specific objectives, and strategies for addressing the principal issues and unmet needs identified during the planning process, as well as recommendations about the future development and management of the Montana trail system.